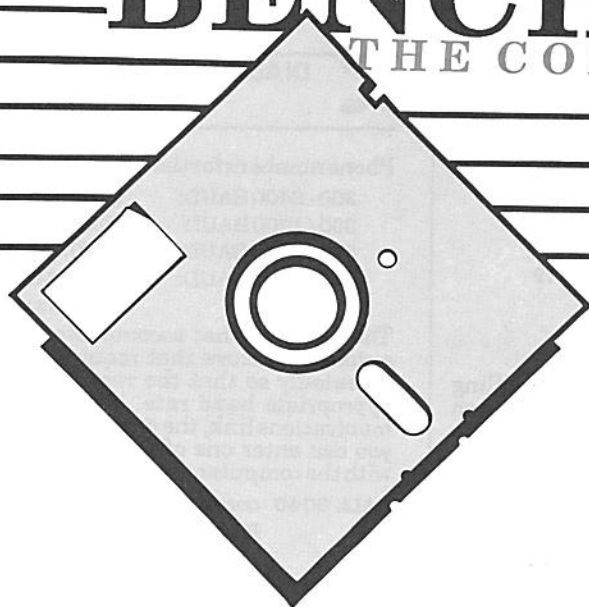


BENCHMARKS

THE COMPUTING CENTER



University of North Texas

VOLUME 10 NUMBER 9

NOVEMBER/DECEMBER 1989



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THE HOLIDAY ISSUE



SERVICES AVAILABLE TO USERS OF THE UNT COMPUTING FACILITIES

The UNT Computing Center is located in the Information Sciences Building (ISB), Room 119. Phone Numbers:

Computing Center: (817) 565-2324
Help Desk: (817) 565-4050
Micro Support: (817) 565-2316, 565-2319
Graphics Lab: (817) 565-3479
ISB I/O Area: (817) 565-3890
BA I/O Area: (817) 565-2350

All personnel listed below can be contacted either by calling the Computing Center or by sending them electronic mail on MUSIC/SP (ID-codes follow each name. All IDs are on BITNET node UNTMUSIC).

Benchmarks - Claudia Lynch (AS04)

Information & ID-Codes; Disk Space Problems - Theresa Russell

Statistical/Research Support - George Morrow (AS01), Panu Sittiwong (AC09), Phanit Laosirirat (AC44)

Academic ADABAS/COM-LETE - Janis Burkham (AC55)

CRSP & COMPUSTAT Problems - Panu Sittiwong (AC09), Phanit Laosirirat (AC44)

Student Programming Problems - CSCI Dept., GAB Room 542A; BCIS Dept., BARoom 152

Problems with JCL, Passwords, or Operating Systems; or Communication/Terminal Problems - Help Desk

Data Entry; Test Scoring & Analysis - Betty Grise

Administrative Applications - Coy Hoggard

Printout Retrieval - ISB or BA I/O Operators



DIALING-UP UNT COMPUTERS OVER THE TELEPHONE

Phone numbers for the Local Area Network (LAN) are:

300-2400 BAUD: (817) 565-3300
 300/1200 BAUD: (817) 565-3499
 300-9600 BAUD: (817) 565-3461
 300-9600 BAUD: D/FW METRO 429-6006, 429-9314

Area code 214 must dial 817 before the METRO #.

The numbers that accommodate multiple baud rates have an autobaud feature that requires you to hit the <RETURN> key repeatedly so that the receiving modem can determine the appropriate baud rate. When you have established a communications link, the # prompt will appear on your screen and you can enter one of following CALL commands to connect with the computer of your choice.

CALL 8040 connects with the NAS/8083 (supports line editing or PCWS). Operating environments available are: MUSIC/SP, VM/CMS.

CALL 3270 connects with the NAS/8083 through a 3270 protocol converter (supports full-screen editing). Operating environments are: MUSIC/SP, VM/CMS, ADABAS/COM-LETE, PHOENIX

CALL DEC connects with the VAXcluster (VMS, Eunice)

CALL 780 connects with the Research VAX (Unix)

CALL 3000 connects with the Libraries' HP-3000 (Bibliographic database).

CALL 6800 connects with the NBI (Unix)

Communications Settings

LAN addresses	Data Bits	Parity	Stop Bits
DEC, 3000	8	N	1
8040, 3270, 780, 6800	7	E	1

HOURS FOR UNIVERSITY OF NORTH TEXAS COMPUTER ACCESS AREAS : FALL 1989*

Location	Days	Times
Computing Center RJE	Sunday Monday Tuesday-Saturday	Noon-Midnight 7 a.m.-Midnight 7 a.m., Tues.-Midnight Sat. (Open 24 hours/day)
ISB 110 Terminal Area	Sunday Monday-Thursday Friday Saturday	1 p.m.-Midnight 7:30 a.m.-Midnight 7:30 a.m.-9 p.m. 9 a.m.-9 p.m.
College of Business	Sunday Monday-Thursday Friday, Saturday	Noon-11:45 p.m. 8:15 a.m.-11:45 p.m. 8:15 a.m.-7:45 p.m.
GAB 550C	Sunday Monday-Thursday Friday Saturday	2 p.m.-Midnight 8 a.m.-Midnight 8 a.m.-5 p.m. 2 p.m.-Midnight
Graphics Lab	Sunday Monday-Thursday Friday Saturday	Noon-10 p.m. 8 a.m.-11 p.m. 8 a.m.-5 p.m. Noon-6 p.m.
Willis Library	Sunday Monday-Thursday Friday Saturday	1 p.m.-Midnight 7:30 a.m.-Midnight 7:30 a.m.-9 p.m. 9 a.m.-9 p.m.

*Hours may vary. Check MUSIC/VAX News and/or posted schedules for exceptions.

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GENERAL INFORMATION

Happy Holidays !

By Claudia Lynch, *Benchmarks* Editor (BITNET: AS04@UNTVM1)

As you read this you are probably busy preparing for the holidays, and at least thinking about what you will be doing during the semester break. If you are a student, you no doubt have term papers to complete and end of semester assignments to give attention to. Faculty members can look forward to grading those assignments as well as composing and grading comprehensive exams.

This is one of the busiest times of the semester for everyone associated with the University, including the Computing Center staff. Members of Academic Computing Services are busy *supporting* faculty and students in their end of semester computing activities. We are winding-up our Short Courses and, in many cases, doing non-stop consulting on numerous topics and applications. Members of Administrative Computing are busy getting ready for the production of grade reports and Spring registration (yes, it will soon be that time again). An additional concern, this particular semester, is preparing for the installation of the new computer system dedicated to administrative computing activities (you will hear more about this in the January issue of *Benchmarks*). Due to all these other activities, this issue of *Benchmarks* does not have a particular focus. We have simply called it the "Holiday Issue." Below you will find a table of holiday hours for the various public access areas around campus to help you in planning for your holiday computing.

Public Access Lab Holiday Hours

Location	Dates	Times
Computing Center RUE	Nov. 22, Nov. 24 - 25, Dec. 16, Dec. 18-23, Jan. 2-6, Jan. 8-13 Nov. 23, Dec. 24-25, Dec. 31-Jan. 1 Dec. 26-30	8 a.m.-Midnight CLOSED 8 a.m.-5 p.m.
ISB 110 Terminal Area	Nov. 22 Nov. 23, Dec. 17, Dec. 23-25, Dec. 30-Jan. 1, Jan. 6-7 Dec. 15 Dec. 16, Jan. 13 Nov. 24, Dec. 18-22, Dec. 26-29, Jan. 2-5, Jan. 8-12 Jan. 14	7:30 a.m.-5 p.m. CLOSED 7:30 a.m.-6 p.m. 9 a.m.-6 p.m. 8 a.m.-5 p.m. 1-10 p.m.
College of Business	Nov. 22, Dec. 15 Nov. 23-24, Dec. 16-Jan. 14	8:15 a.m.-4:00 p.m. CLOSED
GAB 550C	Nov. 22 Nov. 23-25, Dec. 16-Jan. 14 Nov. 26	8 a.m.-Noon CLOSED 4 p.m.-Midnight
Graphics Lab	Nov. 22, Nov. 24, Dec. 18-22, Dec. 26-29, Jan. 2-5, Jan. 8-12 Nov. 23, Dec. 16-17, Dec. 23-25, Dec. 30-Jan. 1, Jan. 6-7, Jan. 13-14	8 a.m.-5 p.m. CLOSED
Willis Library	Nov. 22 Nov. 23, Dec. 17-Jan. 1, Jan. 6-7 Nov. 24, Dec. 18-22, Jan. 2-5, Jan. 8-12 Jan. 13 Jan. 14	7:30 a.m.-5 p.m. CLOSED 8 a.m.-5 p.m. 9 a.m.-6 p.m. 1-10 p.m.

Dates not listed have normal operating hours (see facing page)

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Get Political: Help Keep Software Available Campus-wide

By Claudia Lynch, *Benchmarks* Editor
(BITNET: AS04@UNTVM1)

S. 198, is the proposed "Computer Software Rental Amendments Act of 1989." According to *CCNEWS*, An Electronic Forum for Campus Computing Newsletter Editors (Vol. 2, No. 32, October 27, 1989) the bill, "in its present form... requires all SYSTEMATIC SHARING of software in educational institutions to be done through libraries. Any systematic sharing through computer centers, departments, labs, and classrooms would be a violation of copyright -- unless it is done with the explicit permission of the copyright owner." A proposed modification of the bill includes a clause that will exempt nonprofit educational institutions from its provisions (libraries already have a similar exemption). Below is a list of U.S. senators and representatives you can contact to express your support for such a modification. [More information can be obtained by sending an interactive message or mail containing GET COPYRITE PACKAGE to LISTSERV@AUVM on BITNET].§

House Members of Sub-Committee Courts, Intellectual Property and Administration Washington, D.C. 20515

Robert W. Kastenmeier, Chm. D-Wis. 2328 Rayburn House Office Building 225-2906
George W. Crockett Jr. D-Mich. 2235 Rayburn House Office Building 225-2261
Howard L. Berman D-Calif. 137 Cannon House Office Building 225-4695
John Bryant D-Texas 208 Cannon House Office Building 225-2231
Benjamin Cardin D-Md. 507 Cannon House Office Building 225-4016
Frederick C. Boucher D-Va. 428 Cannon House Office Building 225-3861
George E. Sangmeister D-Ill. 1607 Longworth House Office Building 225-3635
William J. Hughes D-NJ. 341 Cannon House Office Building 225-6572
Mike Synar D-Okl. 2441 Rayburn House Office Building 225-2701
Carlos J. Moorhead R-Calif. 2346 Rayburn House Office Building 225-4176
Henry J. Hyde R-Ill. 2104 Rayburn House Office Building 225-4561

THE BITNET CONNECTION

By Philip Baczewski, BITNET INFOREP(BITNET: AC12@UNTVM1)

*This Column is a continuing feature of **Benchmarks** intended to present news and information on various aspects of the BITNET wide area network.*

CREN is Here...

What, you say, is **CREN**? **CREN** stands for the **Corporation for Research and Educational Networking** and is the result of the BITNET and CSNET merger. Effective September 18, 1989, **CREN** replaced BITNET, inc. as the governing body of the BITNET network. The original name was to have been **ONENET**, however, this was apparently rejected in favor of the more academic sounding **CREN**. The rejection of the **ONENET** name also prevents me from using the inspired title "All for ONE and ONE for All" for this column and somehow, "All for **CREN** and **CREN** for All" just doesn't have the same ring to it.

The creation of **CREN** and has included the authoring of new bylaws for that organization as well as the election of a new Board of Trustees. The new officers of **CREN** are Bernard Galler, Chairman (Galler was previously the Chairman of CSNET), Ira Fuchs, President and CEO (Fuchs was previously the President of BITNET), Philip Long, Secretary, and Martin Solomon, Treasurer.

The first question that comes to mind might be "how does all this change effect my use of BITNET?" In the short term, no changes will be evident. Your mail, files, and **LISTSERV** subscriptions are currently handled no differently than previous to the merger. **EDUCOM** will still be responsible for BITNET Network Information Services and **BBN** (Bolt, Berenek, and Newman) will still be employed to provide services to CSNET.

The initial goal of the merger will be to eliminate the overlap between the two organizations. Galler has stated "The aims of CSNET and BITNET -- to support and promote the use of computer networks on campuses and within research organizations -- have converged over the last several years. We believe that by bringing these two networks into a single organization, we will be able to provide better service to our network users and more effectively participate in the fast-changing national network environment."

So for the moment, both BITNET and CSNET will continue to operate as they have in the recent past, with the combined efforts of **EDUCOM** and **BBN** devoted to their support and improvement. What the future holds is uncertain at this point, but the probable result will be greater access to CSNET nodes from BITNET and vice versa as well as a greater amount of information interchange as a result of that access.§

Howard Coble R-NC. 430 Cannon House Office Building 225-3065
D. French Slaughter, Jr. R-VA. 1404 Longworth House Office Building 225-6561
Hamilton Fish, Jr. R-NY. 2269 Rayburn House Office Building 225-5441
F. James Sensenbrenner, Jr. R-Wis. 2444 Rayburn House Office Building 225-5101

Membership Committee on the Judiciary

Majority Members (Democrat)

Joseph R. Biden, Jr. -Delaware- Chairman of Judiciary Committee Room 221 Russell Senate Office Building Washington, D.C. 20510 (202) 224-5042

Edward M. Kennedy * -Massachusetts- Room 315 Russell Senate Office Building Washington, D.C. 20510 (202) 224-4543

Howard M. Metzgerbaum -Ohio- Room 140 Russell Senate Office Building Washington, D.C. 20510 (202) 224-2315

Dennis DeConcini * -Arizona- chairman of Copyright Subcommittee co-sponsor of S.198 Room 328 Hart Senate Office Building Washington, D.C. 20510 (202) 224-4521

Patrick J. Leahy * -Vermont- Room 433 Russell Senate Office Building Washington, D.C. 20510 (202) 224-4242

Howell T. Heflin * -Alabama- Room 728 Hart Senate Office Building Washington, D.C. 20510 (202) 224-4124

Paul Simon -Illinois- Room 462 Dirksen Senate Office Building Washington, D.C. 20510 (202) 224-2152

Herb H. Kohl -Wisconsin- Room 708 Hart Senate Office Building Washington, D.C. 20510 (202) 224-5653

Minority Members (Republican)

Strom Thurmond -South Carolina- ranking Republican member Room 217 Russell Senate Office Building Washington, D.C. 20510 (202) 224-5972

Orrin G. Hatch * -Utah- ranking Republican on Copyright Subcommittee author of the S.198 Room 135 Russell Senate Office Building Washington, D.C. 20510 (202) 224-5251

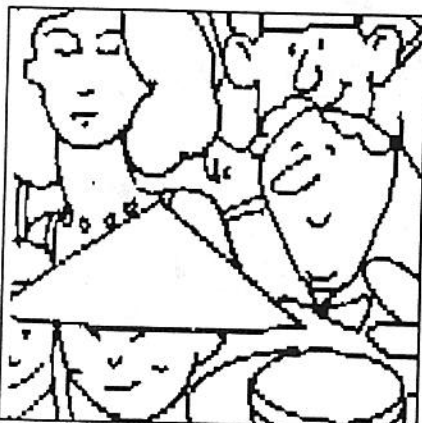
Alan K. Simpson * -Wyoming- Room 261 Dirksen Senate Office Building Washington, D.C. 20510 (202) 224-3424

Charles E. Grassley * -Iowa- Room 135 Hart Senate Office Building Washington, D.C. 20510 (202) 224-3744

Arlen Specter -Pennsylvania- Room 303 Hart Senate Office Building Washington, D.C. 20510 (202) 224-4254

Gordon J. Humphrey -New Hampshire- Room 531 Hart Senate Office Building Washington, D.C. 20510 (202) 224-2841

* indicates membership on the Copyright Subcommittee as well as membership on the full Judiciary Committee



BENCHMARKS FORUM

BENCHMARKS FORUM is intended to serve as a vehicle for answering questions that may be of general interest to the user community. If you have a question, please send electronic mail to the Benchmarks editor (BITNET: AS04@UNTVM1) or write it down and drop it by the Computing Center. We will try to answer it in the next issue.

Question: How can I print certain pages of a document in WP50?

Answer: When in WP50, press Shift-F7 for Print, then select Docu-

ment on Disk from the Print menu. You will be asked for the name of the file. Type in the entire name, i.e.: C:\WP50\Report1.

The command, **Pages: (All)** will be on the screen. At this point type in the page numbers you want to have printed. For example: **Page: 12-** will print from page 12 to the end of the document. Another example would be: **Page: 4-10** This will print pages 4 through 10.

Question: How can I transfer Microsoft Word files into WP50 files?

Answer: Both Microsoft Word and WordPerfect can save and

LIST of the Month

Each month we will highlight one of the BITNET LISTSERV Special Interest Group (SIG) mailing lists. This month's list...

INFO-MAC@RICE

This list is an USENET SIG list that is cross-posted to LISTSERV on BITNET. The topic of the list includes any discussions of Apple Macintosh hardware and software. The list is maintained in digest form -- in other words, the list moderator accepts messages from the list members, compiles them, and then sends a group of messages out as one large message file. The advantage of this format is that non-topical or trivial messages are not forwarded to all subscribers. The disadvantage is that it takes longer to get a response to a question posted to this list.

To subscribe to INFO-MAC, send the following command to LISTSERV@RICE -

SUBSCRIBE INFO-MAC <your full name>

INFO-MAC can also be maintained in ANUNEWS on the VAX under the name COMP.SYS.MAC.DIGEST (this is the "real" INTERNET name of the list).

retrieve files in DCA format. First convert the Microsoft Word document to DCA format (Revisable-Form-Text), and then use the WordPerfect Convert program to transfer it to WordPerfect with option 2 on the Convert menu.\$

Benchmarks Reader/User feedback is encouraged. Send all letters, suggestions, etc to (AS04@UNTVM1), FAX 817-565-4060 or to the Benchmarks Editor at:

Academic Computing Services
University of North Texas
Computing Center
NT Station,
Box 13495
Denton, Texas 76203



MICROCOMPUTERS

BBS Files Available on the UNT Novell Internet

by Billy Barron, VAX System Manager
(BILLY@UNTVAX)

All of the files available to UNT BBS users are now accessible on the UNT Novell internet through Netware. Any UNT Novell internet user on a MS-DOS machine (not a Macintosh since the VAX is Netware 2.0a) including users in the Willis Library and ISB 110 computer labs can utilize these files.

To access the BBS files, perform the following steps:

1) Log into any Netware file server (this is done automatically on boot for Willis and ISB 110 lab users).

2) Type `MAP drive_name:=NTVAXB/DUA1:BBS\FILE`.
(For example, `MAP O:=NTVAXB/DUA1:BBS\FILE`).
When prompted for a username, enter GUEST.

3) Then the BBS files will be on the drive mapped (drive O in the example).

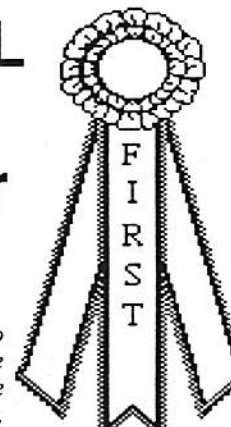
The major advantage is that files can be downloaded transparently at very fast speeds. The major disadvantage is that the file descriptions are not accessible from Netware. In addition, uploads are impossible from

the Netware side. Netware users who wish to use the message base of the BBS must log into the VAXcluster as before.

All of the software on the BBS is public domain or shareware.

Shareware software is usually free for a trial period. However, if the software is used beyond the trial period, the user should pay for the software as described in the program documentation. §

EDUCOM/NCRIPTAL Higher Education Software Awards for 1989



EDUCOM and NCRIPTAL (the National Center for Research to Improve Postsecondary Teaching and Learning) located at the University of Michigan are giving awards for outstanding software for higher education. Following is a list of this year's award winners. This list was received from the Article database of CCNEWS, the Electronic Forum for Campus Computing Newsletter Editors, a BITNET-based service of EDUCOM. For more information about NCRIPTAL, contact Etta Vinik (313) 936-2758. -- ed.

Best Software

Best Biology: A Tutorial in Recombinant DNA Technology by Marcia L. Cordts, Ronald Beloin, and Jane Gibson (Cornell University). Life Sciences Telecomputing, PO Box 815, Ithaca, NY 14850; 607- 273-1976. Apple Macintosh Plus w/2 disk drives and Hypercard; \$35.00 for a single copy, \$20.00 for an educational single copy, site licenses from \$150 to \$400.

Best Chemistry

Best Integrated: Chemical Reactions by Loretta Jones and Stanley Smith (University of Illinois). Falcon Software, PO Box 200, Wentworth, NH 03282; 603-764-5788. IBM PC, XT, AT, PS/2 series; \$400 for software, manual, and videodisc; additional copies, \$150 each.

Best Engineering: MacPoisson: Instructional Finite Element Analysis for Solving Poisson's Equation with the Macintosh by J. Robert Cooke, E. Ted Sobel (Cornell University), and D. C. Davis (Washington State University). Cooke Publications, PO Box 4448, Ithaca, NY 14852; 800-482-4438 ext. 15.

Apple Macintosh Plus, SE, II; \$495 for professional version, \$99.95 for a single-user student license; \$495 for course adoption.

Best Humanities: A Right to Die? The Case of Dax Cowart by Preston Covey and Scott Roberts (Carnegie Mellon University). The ALIVE Center, 1248 Weathervane Lane, Akron, OH 44313; 216-896-9623. IBM XT; pricing not yet determined.

Best Mathematics: PHASER: An Animator/Simulator for Dynamical Systems by Huseyin Kocak (University of Miami). Springer-Verlag New York, Inc., 175 Fifth Avenue, New York, NY 10010; 212-460-1510. IBM PC, XT, AT, PS/2 series; \$49.95.

Best Physics: MacScope by Elisha R. Huggins (Dartmouth College). Thornton Associates, 1432 Main Street, Waltham, MA 02154; 617-890-3399. Apple Macintosh series; free to purchasers of hardware.

Best Psychology: Laboratory in Cognition and Perception (2nd edition) by C. Michael Levy (University of Florida) and Sarah E. Ransdell (University of Maine). CONDUIT, University of Iowa, Oakdale Campus, Iowa City, IA 52242; 800-365-9774. IBM PC, XT, AT, PS/2 series; \$160 for software and manual; EdPack 6, \$320; EdPack 15, \$540; network, \$640; other quantity orders (larger EdPacks, student copies, etc.) available.

Best Social and Behavioral Science

Best Simulation: Fugawiland by T. Douglas Price and Anne Birgitte Gebauer (University of Wisconsin-Madison). Mayfield Publishing, 1240 Villa Street, Mountain View, CA 94041; 415-960-3222. IBM PC, XT, AT, PS/2 series; \$15.95 for software and manual.

Best Tool: Discrete Signals and Systems-pc (DSSpc) by Altan Nahum and Banu Onaral (Drexel University). Academic Productivity Tools, 4048 Arbour Circle,

Lafayette Hill, PA 19444; 215-953-1979. IBM PC, XT, AT, PS/2 series; equivalent programs available for Apple Macintosh series; \$49; quantity discounts available.

Best Tutorial: Introduction to Statistics by Arthur E. Hoerl, Victor R. Martuza, and John H. Schuenemeyer (University of Delaware). Clearinghouse for Academic Software, Iowa State University, Ames, IA 50011; 515-294-0323; DEC Pro, Rainbow, or DECMATE series, MicroVAX I or II; \$3,000 for software and manual, \$1,500 for educational institutions.

Best Writing: Workbench, The Tool for People Who Write by Bank Street College of Education and Franklin E. Smith (Bank Street College of Education). Addison Wesley Publishing Company, Route 128, Reading, MA 01867; 617-944-3700; Apple II series, IBM PC, XT, AT; \$189 for MS-DOS version, \$149 for Apple version; student edition available for \$39.95 to college, university, or graduate level students through a campus affiliated bookstore.

Best Curriculum Innovations

Best Curriculum Innovation - Scientific Laboratory: Workshop Physics: Replacing Lectures with Real Experience Enhanced by Computer Tools by Priscilla W. Laws, John Luetzelshwab, Robert Boyle, and Neil Wolf (Dickinson College). Vernier Software, 2920 S.W. 89th Street, Portland, OR 97225; 503-297-5317. Apple II+, Macintosh Plus, SE, II; uses numerous commercial and freeware software packages.

Best Curriculum Innovation - Underprepared: English Natural Form Instruction Project (ENFI Project) by Trent Batson (Gallaudet University). Realtime Learning Systems, 2700 Connecticut Avenue, Washington, DC

20008-5330; 800-TEACHPC or 202-483-1510; IBM PC, XT, AT, PS/2 series; \$4,000; \$3,000 to educational institutions; price includes installation and support; site licenses available; uses Real-time Writer Software from Real-time Learning Systems.

Best Curriculum Innovation - Writing: Collaborative Writing and Telecommunications Project by Ann Hill Duin (University of Minnesota). Research Design Associates, Inc., PO Box 848, Stony Brook, NY 11790; 800-654-8715; Apple Macintosh Plus; \$249 per network; uses software developed by the University of Minnesota.

Distinguished Software and Distinguished Curriculum Innovations

Engineering: Digital Magic 1.0 by Greg Kostello, Sailish Ranchod, Dan Rutz, Mark Womack, and Thomas Standish (University of California at Irvine). Kinko's Academic Courseware Exchange, 255 W. Stanley Avenue, PO Box 8000, Ventura, CA 93002-8000; 800-235-6919 or in California 800-292-6640. Apple Macintosh series; \$29.95 for software, manual and HyperCard stacks, \$1,200 for site license.

Engineering: TODOR by Earll M. Murman, Judson Baron, Mark Drela, Stephen Ellis, Michael Giles, Joseph Haritonidis, Marten Landahl, Anne LaVin, Jean Louis, James McCune, Leon Trilling, Harold Wachman, Sheila Widnall (MIT), and Isaac Greber (Case Western Reserve University). Technology Licensing Office, MIT, Room E23-300, Cambridge, MA 02139; 617-253-6966. Apollo 4000 series; IBM RT6150; DEC Micro VAX VS II, VS 2000, VS 3000 workstations; \$500; \$3,000 for site license.

English (Curriculum Innovation): Simulating the Operation of Theory with Hypertext by Peter

Havholm and Larry Stewart (College of Wooster). Publisher not given. Apple Macintosh series; no price indicated; uses software from OWL International Guide.

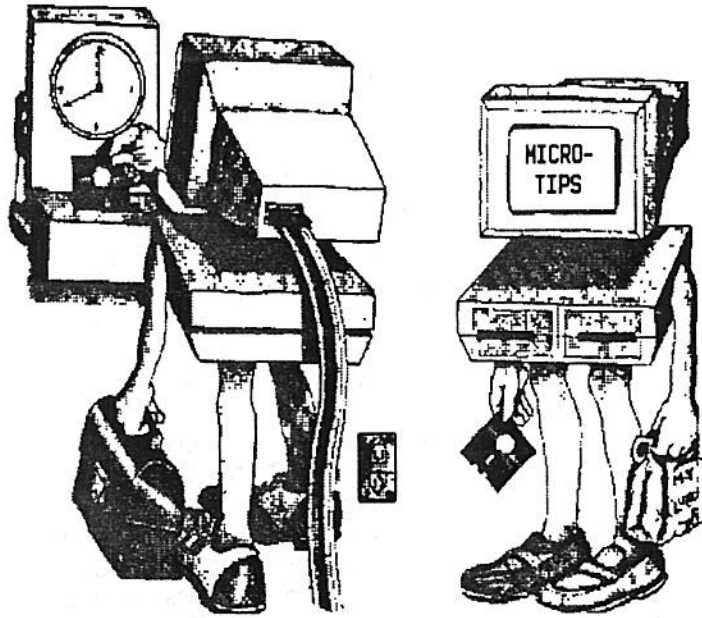
Hebrew: The Safe Affair: An Interactive Video Hebrew Lesson by Edna A. Coffin and Amit Schitai (University of Michigan). Hebrew Interactive Project, 3083 Frieze Building, University of Michigan, Ann Arbor, MI 48109, 313-764-0316. IBM XT, AT, PS/2 series; \$400 for software and video disc, discount prices scaled from \$500 to \$1,200 depending on number of video discs.

Mathematics: MicroCalc 4.0 by Harley Flanders (University of Michigan). MathCalc Education, 1449 Covington Dr., Ann Arbor, MI 48103-5630; 313-761-4666. IBM PC, XT, AT, PS/2 series; \$425 for software and manual, price includes site license.

Physics: The Lorentz Transformation by Dave A. Campbell (Saddleback College), Amy Hartsough (Media Learning Systems), Michael Salisbury (California Institute of Technology), and Robert Sirko (McDonnell Douglas Corporation). Applied Intelligence, 19151 Woodford Terrace, Irvine, CA 92715; 714-854-0958. IBM PC, XT, AT, PS/2 series; \$300 for videodisc.

Psychology: Color Perception by Douglas L. Chute (Drexel University). MacLaboratory, 314 Exeter Rd., Devon, PA 19333; 215-688-3114. Apple Macintosh II, IIx, IIcx, SE 30; \$39.95 for software and ColorCard 1.0, site license or discount prices available on request.

Spanish: Spanish MicroTutor by Frank A. Dominguez (University of North Carolina). Harcourt Brace Jovanovich, 1250 Sixth Avenue, San Diego, CA 92101; 619-699-6227. IBM PC, XT, AT; \$18 net per student for software and manual for adopting institutions. §



*This column is intended to serve as a forum for sharing useful tips on making more productive use of microcomputers. If you have a tip that you feel may be of use to campus users, submit it to the **Benchmarks** editor for possible inclusion in a future issue.*

Increasing Your Micro's Productivity

By David Durni, State University of New York at Buffalo. Copied with permission from the *UB MICRO*, Volume 1, November 1989, Issue 4.

A poorly tuned automobile, as we all know, can greatly affect the performance of the engine in the form of slow acceleration, backfiring, poor gas mileage, etc. This is analogous to improper use of a microcomputer. A poorly installed and maintained microcomputer can decrease speed, stability and overall production. Both software and hardware installations are involved.

I cannot stress enough the importance of performing software and hardware installations thoroughly and accurately. As the microcomputer arena has become more complex, the configuring of the resulting advanced systems has also become more complex. For instance, the proper configuration of memory boards was always difficult, but with the addition of more advanced expanded memory boards, the proper configuration of your memory can make or break the speed and efficiency of your machine and software.

The following is a list of some things I would suggest you take the time to check out and perform regularly to insure that you have a happy and healthy microcomputer.

- Check your CONFIG.SYS file. Are there an adequate number of FILES and BUFFERS selected? See if there are any DEVICE drivers for which you no longer have a need. Many device driver statements have parameters that are necessary. Check your manuals to see if the correct parameters have been selected. Many times you are required to experiment with drivers and their parameters to make sure everything is working together as planned.
- Check your AUTOEXEC.BAT file. Are there any programs or utilities you are loading at bootup that you no longer need? Are you loading any terminate-stay-resident (TSR) programs that you could run non-resident to save memory? Are you loading utilities that could help speed up your micro, such as cache programs, SHARE, VDISK, FASTOPEN, etc.

Continued on Page 7.

More WordPerfect 5.1 Information

By Claudia Lynch, *Benchmarks* Editor
(BITNET: AS04@UNTVM1)

This a continuation of the article entitled "WordPerfect 5.1 Upgrade Highlights." that appeared in the October 1989 issue of Benchmarks, Volume 10, Number 8.

Free Updates?

According to *The WordPerfectionist*, the newsletter of the WordPerfect Support Group (Vol. 11, No. 10, page 2), customers who purchased WordPerfect 5.0 between October 1 and November 30, 1989, are eligible for a free update. To request an update, send a dated proof of purchase and the title page of the WordPerfect 5.0 reference manual. Your request must be postmarked **no later than December 31, 1989**. If you have an individual, i.e. retail copy of WordPerfect (not a site licensed copy obtained from the Computing Center), you will pay \$85 plus \$2.50 shipping and handling. To get an update, send your payment, if you need to make one, the title page of your reference manual, and a statement as to your printer make and model, template type, and preferred disk size (5.25" or 3.5") to:

WordPerfect 5.1 Update
1555 N. Technology Way
Orem, UTAH 84057

Hardware Requirements

According to "WordPerfect 5.1," the article in *The WordPerfectionist* referenced above, WordPerfect 5.1 will not run on two 360K drives. It will run on a two drive system if both drives have a capacity of 720K or more. A hard drive is definitely recommended. WordPerfect 5.1 will

Micro-Tips continued from page 6.

- Do you have sufficient available disk space? When a hard disk nears its capacity, there tends to be a lot of disk fragmentation. (Basically, fragmentation is when a file is not written on consecutive tracks of the disk, thereby being scattered around the hard disk because there is not enough consecutive area on the disk available for the size of file you wish to save. Consequently, it takes longer to retrieve and store files, since they are scattered around the disk.) There are disk optimizing programs available, such as Norton Utilities, that will rearrange your files on your disk so that they are stored in the most efficient manner for access. An alternative way to optimize your disk is to make a backup of your hard disk on floppy or tape, reformat your hard disk, and then restore the floppies or tape back onto the disk. Either way, you will end up with all your files written consecutively on the hard disk and, hopefully, you will see an improvement in file access and program startup time.
- Software installation is another area that cannot be thought of lightly. A properly installed software package can make all the difference in performance. It is a big misconception on the part of many users that all you need to do is create a subdirectory and copy the program disks into that subdirectory. Times are changing. Many software packages have install programs that will ask you a multitude of questions and scan your system for certain features. Others actually execute compilers to make a customized program executable so as to run most efficiently on your machine. If anyone has installed Microsoft Windows, you should have an idea about what I am describing. Windows can be incredibly slow if not installed properly. I'd suggest taking a look at your WIN.INI file to see if everything looks appropriate.
- Do you use subdirectories? Does a DIRectory of your root directory fill up several screens worth of file names? Do you have to spend 5 minutes looking through 500 files to find the name for which you're looking? If so, learn about subdirectories! Subdirectories enable you to segregate different application programs so that you have an idea of what files belong to which programs, and which files you can delete when you no longer use that application. They're easy to use and master. Give it a try.

Basically what I want to say is that, if your machine seems to be slower than when you first used it, don't chalk it up to old age. See what you can do to rejuvenate it. Many times, newer equipment is necessary as your usage progresses, but you could encounter the same problems if that new equipment isn't installed properly. You say you need help figuring out your optimal configuration? Give the Micro Support line a call [565-2316, 565-2319] and the consultants on duty will do their best to assist you. Good luck!§

use between 2.5M and 4.5 M of hard disk space in most configurations, and it requires 384K of free RAM (minimum) at the time of startup. LIM expanded memory version 3.2 or 4.0 (4.0 is supposed to be faster) is also supported. If you load WordPerfect 5.1 with the /R option, over 500K of expanded memory will be required. You can, however, limit the amount of RAM it grabs in both conventional and expanded memory with the /W start-up option.

For more information on ordering WordPerfect 5.1, call WordPerfect Corporation at (800) 321-4566. For information about site licensed WordPerfect obtained from the Computing Center, contact Microcomputer Support (565-2316, 565-2319).§

VAX COMPUTER CLUSTER

Netware VMS is Here!

By Billy Barron, VAX System Manager (BITNET: BILLY@UNT VAX)

Netware VMS is a VAX version of the PC Netware networking software that allows a VAX to act as a PC file server. To PC users, Netware VMS will look like just another Netware file server. Unfortunately, to VAX users, Netware VMS is invisible and adds no new VAX functions, such as being able to access the PC file servers from the VAX.

Purpose

On the UNT campus, Netware VMS' primary purpose is to provide transparent access to VAX files for PC users. Also, Netware VMS allows Netware users to log into the VAX without a Sytek or TCP/IP connection. The VAX server is very slow compared to other Novell servers due to the interactive load on the VAX. For this reason among others, the VAX server will not be used for the loading applications -- just VAX-PC file transfer.

How Do I Get a Netware VMS Account?

All interactive VAX users will automatically be assigned Netware VMS accounts. If you are not VAX user and you want a Netware VMS account you should apply for a VAX account through the Computing Center. The password of the Netware VMS account will be the same as the VAX password. Passwords must be changed on VMS not Netware. Any user with a double password on the VAX will be unable to use their Netware VMS account. If you have this problem, please contact the VAX operators.

Drives

The Netware VMS server is known as NTVAXB. NTVAXB has the following volumes available:

- SYS:Netware VMS System Files
- DUA0:VMS System Disk
- DUA1:Public files and software packages
- DUA2:Class and IAS Accounts
- DUA3:More System Files and IAS Accounts
- DRA0:Individual Accounts

Continued on page 9.

BEST OF THE BBS



Edited by Billy Barron,
VAX System Manager
(BITNET: BILLY@UNT VAX)

Welcome to the **Best of the BBS** column. This column highlights some of the more interesting and useful discussions on the UNT BBS. From those of you not familiar with the BBS, here is how to log into the UNT BBS.

- Sign-on by typing **CALL DEC** at the LAN prompt and then entering **BBS** as your Username at the VAX prompt.
- If you are already logged-on to the VAXcluster, type **BBS** at the \$ prompt.

The opinions expressed in this column do not necessarily reflect the views of Academic Computing Services or the Computing Center. Also, information in **Best of the BBS** has not been checked for accuracy.

OOP - Object Oriented Programming

#21640 8-SEP-1989 10:42:26.25

Subject : The hoity-toity C[++] Language

OOPs at it's greatest! Sure wish I could afford C++ for DOS (or even for the 3b1!) What's the general feeling of programming in an OOP language? easy?

Continued on page 9.

Logging into Netware VMS

To use Netware VMS, a new file called SHELL.CFG should first be created in the PC directory where IPX and NET3 (or NET2 or NET4) reside. SHELL.CFG should contain one line of text "READ ONLY COMPATIBILITY=ON". IPX and NET3 (or NET2 or NET4) should then be loaded. Willis Library and ISB 110 lab users can ignore the above steps as they should already be done for you.

To login into the Netware VMS server, type **LOGIN NTVAXB/userid** and then when prompted, enter your password. For example (userid - AC02 password - HELLO),

F: LOGIN NTVAXB/AC02
Enter your password: HELLO

When you log in the NTVAXB server, you will be placed in H: which is your home directory.

Another way to access the Netware VMS server is to map a network drive to it. The first step is to figure out what drive your account is on. Class account users will be on DUA2 and almost all individual account users are on DRA0:. Then type **MAP drive_name:=NTVAXB/vax_drive:userid**. When prompted for a userid and password, enter them. Example for mapping the P: drive to AC02, which is an individual account with the password PAPER:

F: MAP P:=NTVAXB/DRA0:AC02
Enter login name: AC02
Enter your password: PAPER

Filenames

Netware and VMS filenames are different which leads to a few difficulties:

- Netware filenames are 1 to 8 characters with an extension of 1 to 3 characters. VMS filenames can be much longer. If the VMS filename is not of the Netware format, then the file will be inaccessible to Netware.
- If the Netware filename contains special characters that are not allowed with VMS filenames, the file will be accessible on the VMS side, but under a slightly different name.
- VMS supports multiple versions of the same filename. However, Netware is incapable of doing this. If multiple versions of the same file exist, Netware VMS will only be able to access the latest version. If a Netware user deletes or renames a file with multiple versions, then all versions of the file will be deleted or renamed.

Logging into VMS using Netware VMS

Netware VMS includes a PC program called TES (Terminal Emulation Service), which will allow any Netware user on campus to log into the VAX with the VMS operating system over Netware. TES is a little hard to use. The computing center plans on making TES easier to use in the near future. If any Netware user has the need to use TES now, please contact the computing center for more information.

Help

Any questions about Netware VMS should be directed to the VAX Operators at 565-4161 or by sending mail to the OPERATOR account on the VAX.\$

Best of the BBS, continued from page 9.

difficult? hard when you don't quite understand it and slick as snot when you do understand it?

.....
#21665 Reply to #21640 8-SEP-1989 12:12:06.07

Subject : OOP

Try out Smalltalk V - only 99 bucks. And there is Microsoft Quick Pascal which is oop, also for \$99. Of course every article I have read says that the Turbo Pascal 5.5 is better than microsoft's implementation. TP is available from many sources for around \$100 to \$120 or so...

.....
#21826 Reply to #21640 8-SEP-1989 18:39:19.72

Subject : RE: The hoity-toity C[++] Language

OOP will make your brain hurt if you have no background in it. C++ has a few concepts that appear quite daunting (they are) when read without the proper background.

As far as OOP goes, it is totally backward from the current way programming is taught (ie, procedural). OOPS allows you to define a set of "commands" that object classes can respond to. Take for instance writing a drawing program in a procedural language.

Let's say you have two types of objects: a square and a triangle. You want to be able to draw, resize and rotate your squares and triangles. In a traditional procedural language, you would have to write 6 separate procedures:

```
DrawSquare
ResizeSquare
RotateSquare
DrawTriangle
ResizeTriangle
RotateTriangle
```

since you cannot apply the same algorithm to draw/resize/rotate squares and triangles.

Now, in an OOP language, you would define a class and then subclasses for squares and triangles. For instance, both a square and a triangle are SHAPES. In the class SHAPES, you could define parameters that apply to all shapes. For instance, you might say all SHAPES are filled in 50% grey, or you could define an + operator for the class SHAPE that defines what happens when you add to shapes together.



Both the class SQUARE and TRINAGLE would be defined in terms of SHAPES, plus with their own operative definitions.

It looks something like this:

```
class SHAPES
```

```
{...common info about shapes...such as an
overloaded + operand
```

```
class SQUARE {
  Draw
  Resize
  Rotate}
class TRIANGLE {
  Draw
  Resize
  Rotate}
}
```

No you can define the following

```
SQUARE      aSquare
TRIANGLE    aTriangle
SHAPE       aShape
```

and in your program make the following calls

```
Draw(aSquare)
Rotate(aTriangle)
aShape = aSquare + aTriangle
```

The compiler knows, from your class definition, that it should draw aSquare according to the rules given in the SQUARE subclass and rotate aTriangle according to the rules given in the TRIANGLE subclass.

Since both aSquare and aTriangle are SHAPES, you can use the overloaded + operand you defined in class SHAPES to add the two together, quite likely getting a polygon (which, rightly, could be a SUBCLASS one step above SQUARE and TRIANGLE).

So, there you have a really SIMPLIFIED discussion of OOP vs non-OOP programming.

If you are really interested in OOP, I suggest whole heartedly that you do some programming in HyperCard, since it is very forgiving and gives you a good introduction to OOP programming.

.....
#21964 Reply to #21826 10-SEP-1989 12:04:37.25

Subject : RE: The hoity-toity C[++] Language and OOPs in general.

Give me your opinion, here.... It was said that OOP is totally different from the pro-

cedure methods of old. What about languages like Turbo Pascal 5.5 which give you new keywords, and the ability to stuff procedures inside types. Does this really classify as a full-fledged OOPL? The problem I have with it is that it allows lazy people to still use the old methods. Maybe that isn't all bad, but I wish there were more drastic change for me to see. Maybe I should get Smalltalk. Now THAT would be an adventure....!

Power C

#25613 1-OCT-1989 00:39:41.36

Subject : RE: I did it again

Isn't Power C from a local company? What is it (he digs around through the stack of old Dr. Dobb's Journals...), MIX? I started looking at it a while back when I was considering C as an alternative to Pascal for my own personal use.. It looked really interesting! Heck, for \$50 it looked like you could get the package deal; compiler, debugger, library source, an assembler and everything... I decided to stick with Turbo until I could afford JPI TopSpeed Modula-2 and a good library, but it turns out that I am going to need to learn C anyway (and really would like to). Actually, I ended up buying Turbo C when I upgraded Turbo Pascal (Borland had a pretty good deal - you could upgrade either compiler and get all four of the new products (Turbo Pascal, Assembler, Debugger, and C) for the price of one commercially...) - so I guess I am going to have to think of an interesting program to write this summer in C, 'cause from what I hear you really need to know C before you take this class...

Well, anyway, after confusing you sufficiently I will quit... but first, my question... is Power C really as good as it sounds? I mean, it sounds faster than Turbo and it produces better code than MS C... is it and does it? I hear it doesn't create "standard" object files, either... is that true? Thanks a lot-

.....
#25617 Reply to #25613 1-OCT-1989 02:49:07.25

Subject : Power C

I like Power C because it gives a very complete package for such a low price, and you can get the source code for all the functions cheap, too. I am not sure whether it is faster than Turbo. I haven't seen any benchmarks that I recall, and I haven't used Turbo C. True, it has non-standard object files, but there is a process for linking Microsoft C object files if you

need to. I really appreciate the debugger, though. I get really tired of staring at code, trying to find the error that I wouldn't have put there in the first place if I could have seen it. I am still learning C, and this has been a great package. I also have Microsoft C V 4.0 with codeview, but prefer Power C.

The company IS in Richardson, too. I bought an editor with Mix C, and couldn't figure out how to change the macros to be able to compile and link Power C from within it, so I drove over there. It is hard to find. No sign. but the receptionist was pleasant and the technician quickly set me on the right path. I also bought a database functions package and a windows functions package while I was there.

I think it is a good package which is hard to beat for the price, especially for a student.

Upgrading MS-DOS

#21989 10-SEP-1989 18:09:35.51

Subject : DOS

DOES ANYONE KNOW HOW TO UPGRADE DOS IN A HARD DRIVE WITH EASE. I HAVE HEARD DIFFERENT STORIES INCLUDING REFORMATTING...

.....
#21989 11-SEP-1989 09:22:14.23

Subject : RE: DOS

What DOS versions are you: coming from and: going to? most of the time, you can just do a SYS C: and then copy COMMAND.COM over, but that doesn't always work.... (remember: ALWAYS backup before you do something this drastic)

You don't NEED to re-format unless you're doing a drastic change (2.1 to 3.3 or 3.3 to 4.01) If you haven't formatted or even low-level formatted your hard drive in a long time, it would be good for the drive to do that. It'll clean up your data, give you some free space, etc.

VAX Usage

#21114 5-SEP-1989 19:50:10.24

Subject : Sysops and VAX usage

I have been involved in telecommunications at the BBS level for about 5 years, but never have I used the services available on, for example, the VAX Cluster.

The Microlab (floor 3 GAB) simply put the Benchmarks newsletter in my hands and told me, "Everything you need is in

there." After reading through the current issue of Benchmarks, I now know how to logon to the LAN system, and access this board. What I really wanted to know how to do was use services such as PASCAL, EDT, etc. How does one connect to these systems and use them?

Are there instructions for doing any of these things? Although I could be considered proficient in the use of telecommunications at the micro-computer/local BBS level, I know nothing of the ways of the mainframe system here at UNT, and would like more information. Anyone who can help ... please do!

#21145 Reply to #21114 5-SEP-1989 22:12:16.21

Subject : RE: Sysops and VAX usage

Well, if you are taking a computer class that uses the vax, then you will get a vax account issued to you automatically. If not, you can ask one of your computer science teachers to help you get an individual account on the vax cluster. From any regular vax account (class or individual) you will be able to access things such as the EDT and TPU editors and the PASCAL, C, FORTRAN, and other compilers.

#21197 Reply to #21114 6-SEP-1989 09:09:43.85

Subject : RE: Sysops and VAX usage

Mainframe and Minicomputer services at UNT are provided by the UNT Computing Center, and managed by Academic Computing Services. If you have a copy of the September, 1989 issue of Benchmarks, the Computing Center newsletter, please refer to page 13, "UNT Computing Center Policy and Procedure highlights." This article will tell you, among other things, how to get an ID on one of the academic systems. If you want to learn about using the VAX, see the listing of Academic Computing short courses on p. 10. Among these is an introduction to VAX/VMS. If you need to acquire a copy of the September issue, check the terminal labs, or come by the Computing Center offices (ISB 119).

Using NOVELL or WordPerfect at home

#21595 8-SEP-1989 01:15:50.46

Subject : NOVELL Network

I know that this is a faint hope, but is it possible to call in and somehow log onto the NOVELL Network? I'm in Tech

Writing and need to use the WordPerfect 5.0 (which I don't have nor do I have a hard disk to run it from). I tried doing a paper in WordStar (a very old, inadequate version) at home in nondocument format and then taking the disk to the Tech Writing Lab to convert and print it, but it made "lovely" garbage of my paper. It somehow converted the last letter of almost every word to a greek letter. Of course, it took me as long to fix the paper as it had to write it in the first place. I was told by my Tech Writing teacher that it (logging on from home) couldn't be done, but I just HAD to check with someone who knew more about the computer systems and the LAN.

#21642 Reply to #21595 8-SEP-1989 10:50:49.62

Subject : RE: NOVELL Network and wordstar/word perfect

At present there isn't any way to use Novell from home. But as to your problem, it sounded to me like you had edited the wordstar document in DOCUMENT mode, not non-document mode. When wordstar edits in document mode, it sets the high bit on the last character of each word, and word perfect took that to mean greek letters. (I can give a longer explanation if you want one). So I would suggest making sure you do a non-document edit, or save it as a dos text file, and then trying to bring it into word perfect.

#21649 Reply to #21595 8-SEP-1989 11:09:42.87

Subject : RE: NOVELL Network

Because DOS wasn't meant to go through COM ports (ala modems) you'd have to get a copy of something like Carbone Copy or PC Anywhere and also have one on a machine up at school that you could call into - but, if I remember, UNT doesn't have that type of service.

#21889 Reply to #21595 9-SEP-1989 09:33:38.35

Subject : RE: NOVELL Network

There are currently two ways that one could call in to and log into a Novell Network. One is to have a modem and a software package like Co-Session or PC Anywhere connected to a PC that's on the network. This option allows you to basically "run" the host PC from remote. The other option is to attach to a Novell station that is connected via ethernet TCP/IP to the mainframe system. CC1 is the only NT server which can do this, and that's all you can get to. At the Novell network that I manage, we are building up the hardware for a third option, but it won't be ready for about 6 to 9 months. This feature would be somewhat similar to calling in to the Sytek LAN to connect to the BBS. You would be calling a Communications Server connected directly to a specific server (TW_LAB in your case) and would establish a network session just as you would from a PC directly on the network. Like I said, though, this option is far off for our system. I haven't even heard what the TW_LAB people are wanting to do with theirs.

Well, I'll stop now, as that's probably more information than you wanted. Feel free to ask any other questions, though. \$

VAXCLUSTER USAGE STATISTICS

September Top Ten Programs: Frequency of Runs

Program	Description	Number of Runs	Percent of Total
1. LOGINOUT	User login	112833	18.0
2. SET	VMS Utility	66753	10.1
3. DELETE	VMS Utility	34165	5.2
4. SHOW	VMS Utility	29715	4.5
5. DIRECTORY	VMS Utility	29507	4.5
6. EDT	Editor	28416	4.3
7. User programs	Compiled Programs	26283	4.0
8. TYPE	VMS Utility	24661	3.7
9. NETSERVER	DECnet Server	17451	2.7
10. SYSLOGIN	User login	16398	2.5
Total		657850	

Your Co-worker Could Be A Space Alien

From JOKE-L%TRITU.BITNET@MITVMA.MIT.EDU

YOUR CO-WORKER COULD BE A SPACE ALIEN, SAY EXPERTS ... here's how you can tell (by Michael Cassels of the "National Inquirer") Many Americans work side by side with space aliens who look human - but you can spot these visitors by looking for certain tip-offs, say experts. They listed 10 signs to watch for:

1. Odd or mismatched clothes. "Often space aliens don't fully understand the different styles, so they wear combinations that are in bad taste, such as checked pants with a striped shirt or a tuxedo jacket with blue jeans or sneakers," noted Brad Steiger, a renowned UFO investigator and author.
2. Strange diet or unusual eating habits. Space aliens might eat French fries with a spoon or gobble down large amounts of pills, the experts say.
3. Bizarre sense of humor. Space aliens who don't understand earthly humor may laugh during a serious company training film or tell jokes that no one understands, said Steiger.
4. Takes frequent sick days. A space alien might need extra time off to "rejuvenate its energy," said Dr. Thomas Easton, a theoretical biologist and futurist.
5. Keeps a written or tape recorded diary. "Aliens are constantly gathering information," said Steiger.
6. Misuses everyday items. "A space alien may use correction fluid to paint its nails," said Steiger.
7. Constant questioning about customs of co-workers. Space aliens who are trying to learn about earth culture might ask questions that seem stupid, Easton said. "For example, a co-worker may ask why so many Americans picnic on the Fourth of July," noted Steiger.

September Top Ten Programs: CPU Time Used

Program	Description	CPU Time	Percent of Total
1. User programs	Compiled Programs	13 15:55:31.46	47.5
2. NEWS	ANU News Utility	4 16:44:04.22	16.3
3. LOGINOUT	User login	1 13:27:36.80	5.4
4. EDT	Editor	1 03:55:13.21	4.0
5. BBS	Bulletin Board	0 18:20:50.89	2.7
6. BACKUP	Disk Backups	0 15:25:08.93	2.2
7. PASCAL	PASCAL Compiler	0 13:28:13.74	2.0
8. MAIL	VMS Mail	0 11:05:22.78	1.6
9. DISKEEPER	Disk Defragmenter	0 08:24:40.40	1.2
10. LISP	Lisp Interpreter	0 07:41:11.85	1.1
Total		28 04:09:59.13	

October Top Ten Programs: Frequency of Runs

Program	Description	Number of Runs	Percent of Total
1. LOGINOUT	User login	89110	17.1
2. SET	VMS Utility	76933	14.7
3. DELETE	VMS Utility	45312	8.7
4. EDT	Editor	30308	5.8
5. User programs	Compiled Programs	29624	5.7
6. DIRECTORY	VMS Utility	29261	5.6
7. TYPE	VMS Utility	27680	5.3
8. SHOW	VMS Utility	23773	4.6
9. NETSERVER	DECnet Server	21888	4.2
10. PASCAL	Pascal Compiler	18608	3.6
Total		522301	

October Top Ten Programs: CPU Time Used

Program	Description	CPU Time	Percent of Total
1. User programs	Compiled Programs	24 15:41:46.73	56.5
2. EDT	Editor	1 15:09:03.85	3.7
3. LISP	Lisp Interpreter	1 05:59:58.30	2.9
4. NEWS	ANU News Utility	1 02:44:11.50	2.6
5. PASCAL	PASCAL Compiler	1 01:22:43.56	2.4
6. BBS	Bulletin Board	0 18:29:46.09	1.8
7. LOGINOUT	User login	0 14:42:34.84	1.4
8. BACKUP	Disk Backups	0 14:32:48.78	1.4
9. DISKEEPER	Disk Defragmenter	0 12:58:43.87	1.2
10. MAIL	VMS Mail	0 12:27:52.18	1.2
Total		37 13:08:01.10	

8. Secretive about personal life-style and home. "An alien won't discuss domestic details or talk about what it does at night or on weekends," said Steiger.
9. Frequently talks to himself. "An alien may not be used to speaking as we do, so an alien may practice speaking," Steiger noted.

10. Displays a change of mood or physical reaction when near certain high-tech hardware. "An alien may experience a mood change when a microwave oven is turned on," said Steiger. The experts pointed out that a co-worker would have to display most if not all of these traits before you can positively identify him as a space alien.

Watch out!!!§

COMPUTING TECHNICAL SERVICES

Mainframe Performance Statistics

NAS/8083 Dual Processor Performance Statistics for September

CPU	SYSTEM	Planned Production Hours	Production Hours Achieved	System Uptime
ACAD	VM/SP5	715.08	714.66	99.9%
ACAD	MUSIC/SP	678.84	677.49	99.8%
ACAD	MVS/JES2	714.21	709.79	99.4%
ACAD	COMPLETA	714.13	705.14	98.7%
ADMN	MVS/JES2	714.38	713.73	99.9%
ADMN	COMPLETA	261.00	258.75	99.1%
ADMN	ADABASA	690.94	690.02	99.9%

- The ACAD CPU achieved 100% uptime in September and October.
- The NAS/7360 DASD achieved 100% uptime in September and October.
- The NAS/7380 DASD achieved 100% uptime in September and October.
- The ADMN CPU achieved 100% uptime
- The NAS/7360 DASD achieved 100% uptime in September and October.
- The NAS/7380 DASD achieved 100% uptime in September and October.
- The EMC Solid State Disk Unit completed its extended certification period satisfactorily. \$

Key Causes Of Lost Productivity In September

ACAD CPU:

CPU, Tape, and Disk Subsystems (NAS)

1. Rearranging tape, DASD, and console equipment for staging of another NAS 8083 processor. **2.71 HOURS**

Miscellaneous

1. Systems development. **5.78 HOURS**
 2. COMPLETA system maintenance. **3.68**
- TOTAL 9.46 HOURS**
GRAND TOTAL 15.33 HOURS

ADMN CPU:

CPU, Tape, and Disk Subsystems (NAS)

1. Rearranging tape, DASD, and console equipment for staging of another NAS 8083 processor. **5.85 HOURS**

Miscellaneous

1. Keeping COMPLETA down to run FISCAL jobs. **2.00 HOURS**
 2. System development. **0.92**
- TOTAL 2.92 HOURS**

NAS/8083 Dual Processor Performance Statistics for October

CPU	SYSTEM	Planned Production Hours	Production Hours Achieved	System Uptime
ACAD	VM/SP5	744.00	737.37	99.1%
ACAD	MUSIC/SP	706.63	699.51	99.0%
ACAD	MVS/JES2	744.00	735.02	98.8%
ACAD	COMPLETA	736.72	727.21	98.7%
ADMN	MVS/JES2	744.00	732.68	98.5%
ADMN	COMPLETA	300.00	299.18	99.7%
ADMN	ADABASA	715.17	702.42	98.2%

Key Causes Of Lost Productivity In October

ACAD CPU:

Miscellaneous

1. System shut down for installation of a fan and coil cooling unit in GAB 560. **4.47 HOURS**
 2. Systems development. **1.21**
 3. Undetermined causes for systems restarts. **0.83**
- GRAND TOTAL 9.51 HOURS**

ADMN CPU:

Miscellaneous

1. System shut down for installation of a fan and coil cooling unit in GAB 560. **10.23 HOURS**
 2. Systems development. **1.57**
 3. Power failure in ISB caused BYMPX 0 to fail. **0.95**
- GRAND TOTAL 12.75 HOURS**

ACADemic (NAS) Program Hit Parade

September Top Ten Programs : Frequency Of Runs

Program	Description	#of Runs	% of Total
1. IEBGENER	IBM Utility	17123	21.6
2. IEWL	Linkage Editor	10462	13.2
3. PGM=*DD	Compiled Program	10360	13.1
4. IDCAMS	VSAM Utility	9949	12.6
5. IKFCBL00	VS COBOL Compiler	8209	10.4
6. SASLPA	SAS	5061	6.4
7. IEBTPCH	IBM List Utility	3581	4.5
8. CASMA001	Sort Utility	2098	2.6
9. PTPCH	Dataset Lister	2031	2.6
10. SPSSX	SPSS-X	1839	2.3

September Top Ten Programs: CPU Seconds Used

Program	Description	CPU Seconds	% of Total
1. SASLPA	SAS	46810	36.6
2. PGM=*DD	Compiled Program	22247	17.4
3. COMPLET4	Academic COM-LETE	16267	12.7
4. IKFCBL00	VS COBOL Compiler	8887	6.9
5. SPSSX	SPSS-X	6333	4.9
6. IDCAMS	VSAM Utility	2942	2.3
7. IEBGENER	IBM Utility	2627	2.1
8. FATS	Tape Verification Utility	2228	1.7
9. SCRIPT	Waterloo/SCRIPT	2152	1.6
10. IEWL	Linkage Editor	2002	1.6

October Top Ten Programs : Frequency Of Runs

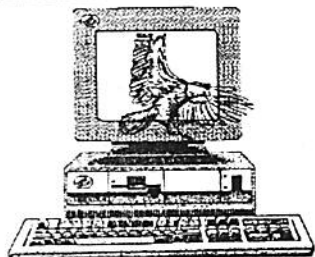
Program	Description	#of Runs	% of Total
1. IEBTPCH	IBM List Utility	28219	25.2
2. IEWL	Linkage Editor	15561	13.9
3. PGM=*DD	Compiled Program	15324	13.7
4. IKFCBL00	VS COBOL Compiler	10962	9.8
5. CASMA001	Sort Utility	7760	6.9
6. SASLPA	SAS	7689	6.9
7. IEBGENER	IBM Utility	7357	6.6
8. IGYCRCTL	VS COBOL2 Compiler	3170	2.8
9. SPSSX	SPSS-X	2881	2.6
9. IEV90	Assembler H	2262	2.0

October Top Ten Programs: CPU Seconds Used

Program	Description	CPU Seconds	% of Total
1. SASLPA	SAS	93849	33.8
2. PGM=*DD	Compiled Program	72404	26.0
3. COMPLET4	Academic COM-LETE	38371	13.8
4. SPSSX	SPSS-X	15618	5.6
5. IKFCBL00	VS COBOL Compiler	11301	4.1
6. ADARUN	ADABAS Utility Module	6023	2.2
7. IGYCRCTL	VS COBOL2 Compiler	4478	1.6
8. SCRIPT	Waterloo/SCRIPT	4467	1.6
9. IEWL	Linkage Editor	4035	1.5
10. IEBTPCH	IBM List Utility	3584	1.3

The programs listed in this section were used the most frequently on the NAS CPU during the months of September and October, 1989.

Please Note that ACAD is the official designation of the part of the NAS/8083 CPU that is dedicated to faculty and student use. The portion of the computer reserved for University administrative purposes is termed ADMN.§



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Disk Backup Schedules

SYSTEM	BACKUP	DESCRIPTION
Administrative MVS/SP	Daily	Monday - Friday around 7 p.m. (after COM-LETE is shut down) & on Saturday & Sunday if COM-LETE has been up that day.
	Weekly	Full pack dumps taken each Sunday morning.
	Monthly	Full pack dumps taken on the first day of each month.
Academic MVS/SP	Daily	Monday - Sunday during the early hours of the morning.
	Weekly	Full pack dumps taken each Sunday.
	Monthly	Full volume dumps taken on the first day of each month.
MUSIC/SP	Daily	Wednesday - Monday starting at 4 a.m. and lasting about 30 minutes.
	Weekly	Tuesday mornings at 3 a.m., these last about 2 hours.
	Semester	Once a semester, a permanent backup is taken.
VM/SP	VM Weekly	Early every Wednesday morning.
	CMS mini-disks	Daily backup performed early every morning. Weekly backup every Wednesday starting at 3 a.m..
VAXcluster	Daily	Incremental backups are performed Monday - Thursday at 6 p.m.
	Weekly	Full backups are performed every Friday beginning at 8 a.m. and generally last all day.
	Monthly	A "stand alone" backup is performed monthly. Dates and times are given in the system log-on message.
	Semester	Once a semester, a permanent backup is taken.

A full description of the system backup procedures can be found by typing **HELP BACKUP** on MUSIC/SP or the VAXcluster.

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